



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/825,318	04/16/2004	Osamu Naruse	252000US3	7870
22850	7590	09/08/2005		
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER TRAN, HOAN H	
			ART UNIT	PAPER NUMBER
			2852	

DATE MAILED: 09/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/825,318

Applicant(s)

NARUSE ET AL.

Examiner

Hoan H. Tran

Art Unit

2852

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,3-11 and 14-16 is/are rejected.
- 7) ☒ Claim(s) 2, 12 and 13 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>08/25/2004</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Drawings

1. The drawings are objected to because:
 - In Figs. 2-4, 6, 8-10 and 12, the cross-sectional hatching of the rubber plate member [12, 22, 32] is incorrect. See MPEP § 608.02.

Correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
4. Claims 1, 4, 5, 8, 10, 11 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muto et al. [6,694,122] in view of Endo et al. [6,701,123].

Muto et al. disclose an image forming apparatus comprising a cleaning device [17]

Art Unit: 2852

comprising a blade chip [Fig. 2] having an elastic plate member [43], a supporting plate [41] supporting the blade chip, a holder [47] pressing the blade chip against the supporting plate [Col. 4, lines 31-61], a holding plate [42] having a support axle [38] for rotatably supporting the blade chip via the supporting plate, and a vibration means [51]. However, Muto et al. do not disclose the elastic plate member is made of rubber and a reinforcing plate member.

Endo et al. disclose an image forming apparatus comprising a cleaning device [200] having a rubber plate member [220] and a reinforcing plate member [222] positioned between the rubber plate member and a supporting member [221].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the cleaning device disclosed by Muto et al. with a rubber plate member and a reinforcing plate member as taught by Endo et al. for the purpose of improving the abrasion resistance of the elastic plate member and controlling the elastic deformation of the elastic plate member.

Regarding claim 8, Muto et al. disclose a piezoelectric element as a vibration means [Col. 1, lines 57-61]

5. Claims 3 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muto et al. in view of Endo et al. as applied to claims 1, 4, 5, 8, 10, 11 and 14 above, and further in view of Yu et al. [5,153,657]

Muto et al. in view of Endo et al., as discussed above, disclose the claimed invention except for the rubber plate member is surface treated.

Yu et al. disclose a cleaning blade being surface treated [Col. 12, lines 24-32].

It would have been obvious to one of ordinary skill in the art at the time the invention

Art Unit: 2852

was made to provide the elastic plate member disclosed by Muto et al., as modified by Endo et al., with a surface treatment as taught by Yu et al. for the purpose of improving the elastic plate member's wear resistance and tear toughness.

6. Claims 6, 7, 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kimizuka et al. [6,438,327] in view of Endo et al. and Muto et al.

Kimizuka et al. disclose an image forming apparatus comprising a process cartridge [B] including an image carrier [7], a charging unit [8], a developing unit [9], and a cleaning means [10] including a rubber cleaning blade [10a] and cleaning blade supporting plate [10b]. However, Kimizuka et al. do not disclose a reinforcing plate member and a holder.

Endo et al. disclose an image forming apparatus comprising a cleaning device [200] having a rubber plate member [220] and a reinforcing plate member [222] positioned between the rubber plate member and a supporting member [221].

Muto et al. disclose an image forming apparatus comprising a cleaning device [17] comprising a blade chip [Fig. 2] having an elastic plate member [43], a supporting plate [41] supporting the blade chip, and a holder [47] pressing the blade chip against the supporting plate [Col. 4, lines 31-61].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the cleaning means disclosed by Kimizuka et al. with a reinforcing plate member as taught by Endo et al. for the purpose of improving the abrasion resistance of the elastic plate member and controlling the elastic deformation of the elastic plate member. Furthermore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the cleaning means disclosed by Kimizuka et al., as modified by

Art Unit: 2852

Endo et al., with a holder as taught by Muto et al. for the purpose of pressing the rubber cleaning blade against the supporting plate thus properly removing residual toner on the image carrier.

Allowable Subject Matter

7. Claims 2, 12 and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoan H. Tran whose telephone number is (571) 272-2141. The examiner can normally be reached from 8:30 AM - 5:00 PM Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Arthur Grimley can be reached at (571) 272-2136. The central office fax number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

HHT
September 02, 2005



**HOAN TRAN
PRIMARY EXAMINER**